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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,798	08/31/2001	Kazuyuki Matsuoka	0425-0846P	9781

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EXAMINER
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FELTON, AILEEN BAKER

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

09/942,798

Applicant(s)

MATSUOKA ET AL.

Examiner

Aileen B Felton

Art Unit

3641

mw

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,9-17,24-29 and 32 is/are pending in the application.
- 4a) Of the above claim(s) 14,16,17,27 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,9-13,15,24-26,29 and 32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 08/696993.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of species of copper oxide in Paper No. 17 is acknowledged. The traversal is on the ground(s) that the species are not distinct. This is not found persuasive because applicant has not submitted evidence or identified such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 14, 16, 17, 27, and 28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No's 7 and 17.

### ***Priority***

3. Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d), a translation of the foreign application should be submitted under 37 CFR 1.55 in reply to this action.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 9-12, 15, 24-26, 29, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khandhadia et al(5,514,230) in view of Castagner et al (5,160,163) and Takase et al(4,572,178).

Khandhadia et al discloses a gas generating composition for use in an air bag which comprises 22-50 % of a nitrogen containing fuel such as 5-AT, 30-66 % of an oxidizer such as strontium nitrate, and 5-15 % of a catalyst which promotes conversion of CO to CO<sub>2</sub> and can include transition metal oxides (i.e. manganese and copper). Manganese and copper oxides also act as a decomposition promoter. There is no disclosure of surface area or mixtures of oxides as a catalyst.

Castagner et al teaches the use of a catalyst such as Hopcalite® that is inside the inflatable bag of an air bag device which acts to absorb or dissociate the CO produced upon activation of the air bag composition (co. 4, lines 30-40).

Takase et al teaches that Hopcalite® is mixture of 22 % copper oxide and 78 % manganese oxide with a specific surface area of 217 m<sup>2</sup>/g (col. 5, lines 1-5). The Hopcalite® is used in an emergency mask to remove CO.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teaching of the catalyst of Castagner mixed with the composition of Khandhadia since both are utilizing transition metal containing catalysts to remove CO that is produced by the gas generating composition in an air bag system. Takase et al merely teaches the specific chemical makeup of Hopcalite®.

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6. Claims 1-3, 9-13, 15, 24-26, 29, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida(5,883,330) in view of Castagner et al (5,160,163) and Takase et al(4,572,178).

Yoshida discloses a gas generating composition for use in an air bag which comprises a nitrogen containing fuel such as dicyandiamide (col. 4, line 4), an oxidizer such as strontium nitrate(col. 4, line 41), and 1-20 % of an oxide based catalyst to reduce the CO (see col. 5, lines 6-40 and examples). The composition can also include a decomposition promoter (col. 5, lines 40-55). There is no disclosure of surface area or mixtures of oxides as a catalyst

Castagner et al teaches the use of a catalyst such as Hopcalite® that is inside the inflatable bag of an air bag device which acts to absorb or dissociate the CO produced upon activation of the air bag composition (col. 4, lines 30-40).

Takase et al teaches that Hopcalite® is mixture of 22 % copper oxide and 78 % manganese oxide with a specific surface area of 217 m<sup>2</sup>/g (col. 5, lines 1-5). The Hopcalite® is used in an emergency mask to remove CO.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teaching of the catalyst of Castagner mixed with the composition of Yoshida since both are utilizing transition metal containing catalysts to remove CO that is produced by the gas generating composition in an air bag system. Takase et al merely teaches the specific chemical makeup of Hopcalite®.

**Conclusion**


7. The prior art that was previously made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen Felton whose telephone number is (703) 306-5751. The examiner can normally be reached on Monday through Friday from 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198.

The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687. The fax number for submissions before a final action is (703) 872-9326, for after final submissions is (703) 872-9327, and customer service is (703) 872-9325.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

  
Aileen B. Felton